

Curriculum Vitae

Dmitri E. Kharzeev

1 Honors and awards

- Fellow of the American Association for the Advancement of Science, 2010
- Fellow of the American Physical Society, 2006
- Sackler Fellow, 2005
- Emilio Segre Distinguished Scholar, 2005
- CNRS Fellow, 2001
- RIKEN-BNL Fellow, 1997
- Winner, USSR Competition in Physics for students, Novosibirsk, 1986

2 Education

- 1980-1986:

Student at the Quantum Statistics and Field Theory Division of the Physics Department of Moscow State University.

- 1986-1990:

Junior Staff Member at Nuclear Physics Institute of Moscow State University.

- 1990:

Doctor of Physics Degree from Moscow State University in Theoretical Particle and Nuclear Physics.

3 Professional experience

- 1990-1993:

Research Associate at Istituto Nazionale di Fisica Nucleare (INFN), Pavia, Italy and Staff Member at Nuclear Physics Institute and Physics Department of Moscow State University.

- 1992-1993: Invited Professor ("professore a contratto") at Pavia University, Italy.

- 1994-1997:
Scientific Associate at the Theory Division of CERN, Geneva, Switzerland;
- 1997:
Scientific Associate at Fakultät für Physik, Universität Bielefeld, Germany;
- 1997-2000:
Fellow, RIKEN-BNL Research Center, Brookhaven National Laboratory;
- 1999-2000:
Associate Scientist, Physics Department, Brookhaven National Laboratory;
- 2000 – 2005:
Scientist with tenure, Physics Department, Brookhaven National Laboratory;
- 2000 – 2004:
Deputy Group Leader, Nuclear Theory;
- 2004 – 2010:
Group Leader, Nuclear Theory;
- 2007 – present:
Adjunct Professor, Physics Department, Yale University;
- 2006 – present:
Senior Scientist with tenure, Physics Department, Brookhaven National Laboratory;
- 2010 – present:
Professor of Physics, Department of Physics and Astronomy, Stony Brook University.

4 Visiting positions

- 1994-95:
Visiting Scientist at Fakultät für Physik, Universität Bielefeld, Germany;
- 2001:
CNRS Fellow, Université de Pierre et Marie Curie (Paris VI), France;
- 2002:
Guest scientist, Program co-organizer, Kavli Institute for Theoretical Physics, Santa Barbara, CA;

- 2008:

Guest scientist, Program co-organizer, Institute for Nuclear Theory,
Seattle, WA;

5 Other professional activities

- 2001-present:

Editor, Annals of Physics

- 1999-present:

Managing Editor, International Journal of Modern Physics E (Nuclear Physics)

- 2009-present

Member of the Nuclear Science Advisory Committee (NSAC) for the Department of Energy and the National Science Foundation

- 1999-present:

Member of review panels for U.S. Department of Energy, Division of Nuclear Physics and National Science Foundation

- 2005-2008:

Elected member of the Brookhaven Council

- 2006-2008

Member of the NSAC (Nuclear Science Advisory Committee) Working group on the long range plan for nuclear science

- 2005-present:

Member of the RIKEN-BNL Advisory board

- 2002-present:

Member, RHIC planning committee at BNL

- 2000-present:

Member, Physics Department planning committee at BNL

- 2000-present:

Member, Physics Department tenure committee at BNL

- Conference organization:

(Co-)organized 48 International conferences and workshops in the US and Europe.

- Conference participation:

Delivered over 180 of invited plenary talks at international conferences and workshops, and over 40 Physics Department colloquia and lectures at the universities in the US, Canada, South America, Europe and Asia (detailed list for 2005-2010 is included below).

6 Teaching experience

- 1990-92:

Lectures on “Group theory in quantum mechanics” and seminars on “High energy nuclear physics” at the Physics Department of Moscow State University;

- 1992-93:

Lectures on “Particle and nuclear physics” at the Physics Department of Pavia University, Italy.

- 2000:

Lectures on “High energy nuclear physics” at the Department of Physics and Astronomy of Stony Brook University;

- 2007 - 2009:

Adjunct Professor at the Physics Department of Yale University;

Graduate course on ”Quantum physics at femto- and nano-scales”.

- Delivered 16 courses at International nuclear and particle physics schools for graduate students and young researchers, including BNL School on Nuclear Physics, CERN School on High Energy Physics, CERN Academic Training Lectures, etc. (detailed list of lectures given in 2005-2010 is included below).

- 2010 - present:

Professor at the Department of Physics and Astronomy of Stony Brook University;

Graduate course on ”Particle Physics”.

7 Department colloquia, lectures, invited talks and seminars (2005-2010)

2010:¹

1. ”Mirror symmetry in super-dense matter”; **colloquium** at the Physics Department of Columbia University, September 13, 2010

¹Colloquia and lectures are in bold

2. "Axial anomaly, Dirac sea, and the Chiral Magnetic Effect"; invited talk at the "Gribov-80" Memorial conference, ICTP, Trieste, Italy, May 26-28, 2010
3. "The chiral magnetic effect", invited talk at the "Light cone 2010" workshop, Valencia, Spain, June 14-18, 2010
4. "The chiral magnetic effect", invited talk at the "Extreme QCD 2010" workshop, Bad Honnef, Germany, June 21-23, 2010
5. "Local parity violation in hot QCD matter", invited talk at the "Pheno 2010" symposium, University of Wisconsin-Madison, May 10-12, 2010
6. "Summary talk: theory at Moriond 2010"; invited summary talk at the International Conference on "QCD and High Energy Interactions" (Rencontres de Moriond), March 13-20, La Thuile, Aosta valley, Italy.
7. "Left-right asymmetry at Relativistic Heavy Ion Collider: implications for the Early Universe", **colloquium** of the Princeton Plasma Physics Laboratory, Princeton University, March 10.
8. "Local Parity Violation and the Chiral Magnetic Effect in QCD", seminar of the Center for Theoretical Physics, MIT, March 1.
9. "Local Parity Violation in Hot QCD Matter", invited talk at the Princeton workshop on "AdS/CFT correspondence and applications", Princeton University, March 11-12.
10. "Local Parity Violation and the Universe", invited talk at the APS Press Briefing, Meeting of the American Physical Society, Washington, DC, February 15, 2010.
11. "The Chiral Magnetic Effect", seminar at the Physics Department, University of Connecticut, February 2, 2010.
12. "Local Parity Violation in Hot and Dense Matter", **special colloquium**, BNL, January 19, 2010.
13. "The Chiral Magnetic Effect", invited talk at the Winter Workshop on Nuclear Dynamics, Ocho Rios, Jamaica, January 2-9, 2010.

2009:

1. "Parity violation in super-dense matter at RHIC" **colloquium** at the UCLA Physics Department, January 22, 2009
2. "Quantum anomalies and fundamental symmetries in hot hadronic matter" **colloquium** at the Joint Institute for Nuclear Research, Dubna, Russia, November 6, 2008
3. "Strong CP violation and the Critical Point", **colloquium** at the Physics Department, BNL, June 10, 2009

4. "Parity violation in super-dense matter at RHIC", Special **colloquium** at the Physics Department, Brown University, April 21, 2009
5. "Chiral magnetic effect and the topological contents of the quark-gluon plasma", **colloquium** at the Institute for Theoretical and Experimental Physics (ITEP), Moscow, Russia, September 7, 2009
6. "Topologically induced parity violation in hot QCD matter", Medium Energy Physics seminar, Physics Department, University of Illinois at Urbana-Champaign, October 21, 2009.
7. "Chiral symmetry and parity-odd effects in hot QCD matter", **colloquium** at the Physics Department of Stony Brook University, November 17, 2009.
8. "Parton energy loss at strong coupling" , invited talk at the Workshop on Heavy Quark Physics in Nuclear Collisions, UCLA, January 22-24, 2009.
9. "Topologically induced local P and CP violation in hot QCD" , invited talk at the 25th Winter Workshop on Nuclear Dynamics, Big Sky, Montana, February 1-8, 2009.
10. "Strong parity violation at RHIC", invited plenary talk at the Symposium "Colliding nuclei in search of new forms of matter", Berkeley, CA, March 27-28, 2009.
11. "Parity violation in hot QCD matter" invited talk at Quark Matter 2009 Conference, Knoxville, TN, March 29 - April 4, 2009.
12. "Topology-induced local P and CP violation in heavy ion collisions" invited plenary talk at the Symposium "Quantum Field Theory in Extreme Environments", Paris, France, April 23-25, 2009.
13. "Topologically induced local P and CP violation in hot QCD matter", invited talk at the 4th International Sakharov Conference on Physics, Moscow, May 18-23, 2009.
14. "QCD and Gravity: broken scale invariance, massless dilaton and confinement", invited plenary talk at the International Conference "Frontiers in Black hole physics", Dubna, Russia, May 25-30, 2009.
15. "Quantum coherence in heavy quark production at high energies", invited talk at the Joint CATHIE-INT program on "Quarkonium in hot medium: from QCD to experiment", INT, University of Washington, Seattle, June 16-26, 2009.
16. "Chiral magnetic effect and local parity violation in dense matter", invited plenary talk at the 4th Workshop on Physics at NICA, JINR, Dubna, Russia, September 9-12, 2009.
17. "Chern-Simons theory hints at Broken Symmetry in hot quark soup", invited talk at the "RHIC Renaissance celebration", BNL, July 30, 2009 .
18. "Local P and CP violation: the future", invited talk at the Joint CATHIE-TECHQM Workshop at BNL, December 14-18, 2009.

2008:

1. "Quantum anomalies and bulk properties of hot QCD matter" LNS **colloquium**, MIT, May 5, 2008
2. "Physics of strong color fields at RHIC" invited keynote talk at the APS Division of Nuclear Physics meeting, October 23-26, 2008, Oakland, CA
3. "Chiral symmetry and Parity violation in hot QCD" University of British Columbia, Physics Department seminar, January 14, 2008
4. "Quantum anomalies in QCD matter", seminar at Physics Department of New York University, March 12, 2008
5. "Hot and dense matter: from RHIC to LHC" invited plenary talk at the 18th PANIC International conference, November 9-14, 2008, Eilat, Israel
6. "Quantum anomalies and fundamental symmetries in hot hadronic matter" **colloquium** at the Joint Institute for Nuclear Research, Dubna, Russia, November 6, 2008
7. "What can we learn about confinement and chiral symmetry breaking from heavy ion collisions?" invited plenary panel talk at Quark Matter 2008 Conference, Jaipur, India, 4-10 February 2008
8. "Parton energy loss" invited **lecture** at the "Quark-Gluon Plasma" International School, Jaipur, India, 1-3 February 2008
9. "QCD-Gravity correspondence" invited **lecture** at the "Quark-Gluon Plasma" International School, Jaipur, India, 1-3 February 2008
10. "Present picture of quarkonium suppression" invited plenary talk at "Hard Probes 2008" Conference, Illa da Toxa, Spain, 8-14 June 2008
11. "Parity and CP violation in heavy ion collisions" invited plenary talk at the VI International Conference on Perspectives in Hadronic Physics, Trieste, Italy, 12-17 May 2008
12. "Center for Analysis and Theory of Heavy Ion Experiments (CATHIE): a proposal", talk at the Workshop on Hot QCD Matter, BNL, May 6-7, 2008.
13. "Hot and dense matter from RHIC to LHC: theoretical overview" invited plenary talk at the International Conference on Particles and Nuclei (PANIC 2008), Eilat, Israel, 9-14 November 2008

2007:

1. "New frontiers of QCD with relativistic heavy ions": a series of invited CERN Academic Training **lectures**, CERN, Geneva, Switzerland, 5-12 May, 2007

2. "Hadron multiplicities at the LHC", invited talk at the Workshop on Heavy Ion Collisions at the LHC: Last Call for Predictions, Geneva, Switzerland, 14 May - 8 June 2007
3. "Chiral symmetry, parity violation, and extra dimensions at femto- and nano-scales", Physics Department **Colloquium**, Vanderbilt University, February 8, 2007
4. "Chiral condensate, parity violation and extra dimensions at femto- and nano-scales" Wayne State University Physics Department **colloquium**, November 29, 2007
5. "The Physics of RHIC"; a series of invited **lectures** at the "Quark-Gluon Plasma" International School, Torino, Italy, February 1-5, 2007
6. "Conformal symmetry breaking in hot QCD Matter", invited talk at "Exotic states of matter and their dual description" Conference, Perimeter Institute, May 22-25, 2007, Waterloo, Canada
7. "Physics of hot QCD matter" , CERN **Colloquium**, Geneva, Switzerland, May 8, 2007
8. "Conformal symmetry breaking in QCD and implications for hot quark-gluon matter", invited talk at the "Heavy Quarks" Workshop, LBNL, November 1-3, 2007
9. "Bulk viscosity in QCD matter", seminar at the Physics Department, Stony Brook University, November 19, 2007
10. "Conformal symmetry breaking in QCD and implications for hot quark-gluon matter"; invited talk at the Workshop "AdS/CFT Day at Columbia", Columbia University, October 26, 2007

2006:

1. "Theoretical issues in J/ψ suppression"; invited plenary talk at 19th International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions: "Quark Matter 2006", Shanghai, China, 14-20 November 2006
2. "The Physics of Strong Color Fields: New frontier of QCD"; **lectures** at Cracow School of Theoretical Physics: 46th Course 2006, Zakopane, Poland, 27 May - 6 June 2006
3. "The strong CP problem and local parity violation"; seminar at the Department of Physics, University of Rochester, February 7, 2006
4. "The physics of RHIC: a theorist's view"; invited plenary talk at 2006 Aspen Winter Conference on Particle Physics "Particle physics at the verge of discovery", Aspen, Colorado, February 14, 2006
5. "Strong CP violation in hot QCD: from heavy ion collisions to cosmology"; seminar at the Center for Theoretical Physics, MIT, February 27, 2006

6. "A dynamical mechanism of strong CP violation in heavy ion collisions", invited talk at the STAR Collaboration meeting, BNL, March 3, 2006
7. " J/ψ suppression: where are we now, and where are we going?", invited opening talk at the Workshop on "20th Anniversary of J/ψ suppression", BNL, May 9, 2006
8. "Strong CP violation in hot QCD"; invited talk at the 22nd Winter Workshop on Nuclear Dynamics, La Jolla, CA, March 12, 2006
9. "Strong P and CP violation in hot QCD"; seminar at the Physics Department, University of Maryland, April 26, 2006
10. "Quarkonium suppression: an introduction"; talk at the 2nd International Conference on Hard and Electromagnetic Probes in High Energy Nuclear Collisions "Hard Probes 2006", Asilomar, CA, June 9-16, 2006
11. "Quantum Chromo-Dynamics at the High Energy/Density Frontier"; invited talk at the RBRC Symposium "RHIC Physics in the Context of the Standard Model", June 18-25, 2006
12. "Multi-particle production and thermalization in high-energy QCD"; invited talk at the VII International Conference on "Quark Confinement and the Hadron Spectrum", Ponta Delgada, Azores Islands, Portugal, September 2-8, 2006
13. "Heavy quarks in QCD matter"; invited talk at the RBRC Workshop on "Heavy quarks and heavy quarkonia", BNL, June 6, 2006
14. "High energy QCD and global hadron observables at RHIC and LHC", invited plenary talk at the International conference on "Soft physics in heavy ion collisions", Catania, Italy, September 27-30, 2006
15. "The physics of RHIC-II", seminar at BNL, January 31, 2006
16. "RHIC-II and EIC: the science of QCD Lab", seminar at BNL, September 31, 2006
17. "Quantum Chromo-Dynamics at the High Energy/Density Frontier"; invited talk at the International Conference on High Energy Physics (ICHEP'06), Moscow, July 26 - August 2, 2006
18. "Energy and Baryon Number dependence in heavy ion collisions"; invited talk at the RHIC-AGS User's meeting, BNL, June 5, 2006
19. "Multi-particle production and thermalization in high-energy QCD"; invited talk at the Workshop on "Hadron Physics and Properties of High Density Matter", Xi'An, China, November 23-25, 2006

2005:

1. "The perfect liquid"; APS Press briefing, meeting of the American Physical Society, April 16-19, 2005, Tampa, FL

2. "QCD and heavy ion physics", invited **lecture series** at CERN - CLAF School of High Energy Physics, 27 February - 12 March, Malargue, Argentina
3. "Quantum black holes and thermalization in relativistic heavy ion collisions"; Invited plenary talk at 18th International Conference on Ultrarelativistic Nucleus-Nucleus Collisions: "Quark Matter 2005", Budapest, Hungary, 4-9 August 2005
4. "New Frontiers of Quantum Chromo-Dynamics: from Strong Color Fields to Super-dense Matter", **colloquium** of the Physics Department, Yale University, February 4, 2005
5. "From Quantum Black Holes to Heavy Ions", invited talk at "Gribov-75: Memorial Workshop on Quarks, Hadrons, and Strong Interactions", Budapest, Hungary, 22-24 May 2005
6. "Quantum Chromo-Dynamics with relativistic heavy ions: from Strong Color Fields to Super-dense Matter", series of **lectures** at Niels Bohr Institute, Copenhagen, Denmark, April 5-8, 2005
7. "Thermalization in Heavy Ion collisions", invited talk at the 21st Winter Workshop on Nuclear Dynamics, Breckenridge, CO, February 5-12, 2005
8. "Hawking-Unruh phenomenon in the parton language", invited talk at The Workshop on Quark-Gluon-Plasma Thermalization (QGPTH05), Vienna, Austria, 10-12 Aug 2005
9. "Quantum black holes, strong color fields, and relativistic heavy ions", seminar at Penn State University, April 25, 2005
10. "Parity violation in Super-dense Matter at RHIC", seminar at the Physics Department, UCLA, May 3, 2005
11. "Hard processes in nuclei at small x", seminar at the Physics Department, UC Riverside, May 5, 2005
12. "New Frontiers of Quantum Chromo-Dynamics at RHIC: from Strong Color Fields to Super-dense Matter", 2005 **J. Dothan Memorial Lecture**, Tel Aviv University, Israel, May 13, 2005
13. "Quantum Black Holes, Strong Color Fields, and Relativistic Heavy Ions", invited talk at the Conference "Understanding Confinement", Ringberg Castle, Tegernsee, Germany, 16-21 May 2005
14. "Quantum Black Holes and Relativistic Heavy Ions", seminar at the Physics Department, Brown University, June 7, 2005
15. "Black Holes and RHIC", invited talk at the RHIC-AGS Users Meeting, BNL, June 20, 2005
16. "Quantum Chromo-Dynamics of Super-dense Matter", series of invited **lectures** at Bielefeld University, Germany, September 19-22, 2005

17. "The physics of RHIC-II", invited talk at the PANIC'05 Satellite meeting on relativistic heavy ions, Santa Fe, NM, October 29, 2005
18. "From quantum black holes to relativistic heavy ions", seminar at the Physics Department of North Carolina State University, November 22, 2005
19. "New frontiers of QCD at RHIC", **colloquium** of the Physics Department, Ohio State University, October 11, 2005

8 Publications and patents

- 116 papers published in refereed international scientific journals; over 180 papers overall; about 7,000 citations (H-index = 45) according to the SLAC SPIRES database.
- US patent 60/892,595 on graphene-magnet multilayers (GMM technology) that may be used as a base for nano-scale spintronic devices; together with A.Tsvelik and I.Zaliznyak.

Publication list (refereed journals)

1. “**Testing the chiral magnetic and chiral vortical effects in heavy ion collisions,**”
D. E. Kharzeev and D. T. Son, Phys. Rev. Lett., to appear; arXiv:1010.0038 [hep-ph].
2. “**Quark fragmentation in the θ -vacuum,**”
Z. B. Kang and D. E. Kharzeev, Phys. Rev. Lett., to appear; arXiv:1006.2132 [hep-ph].
3. “**Topologically induced local P and CP violation in QCD x QED**”
D. E. Kharzeev,
Annals of Physics **325**, 205 (2010)
[arXiv:0911.3715 [hep-ph]].
4. “**Chiral Magnetic Spiral,**”
G. Basar, G. V. Dunne and D. E. Kharzeev,
Phys. Rev. Lett. **104**, 232301 (2010);
arXiv:1003.3464 [hep-ph].
5. “**Magnetic-Field-Induced insulator-conductor transition in SU(2) quenched lattice gauge theory,**” P. V. Buividovich, M. N. Chernodub, D. E. Kharzeev, T. Kalaydzhyan, E. V. Luschevskaya and M. I. Polikarpov,
Phys. Rev. Lett. **105**, 132001 (2010) arXiv:1003.2180 [hep-lat].
6. “**Electric-current Susceptibility and the Chiral Magnetic Effect**”
K. Fukushima, D. E. Kharzeev and H. J. Warringa,
Nucl. Phys. A **836**, 311 (2010);
arXiv:0912.2961 [hep-ph].
7. “**Real-time dynamics of the Chiral Magnetic Effect**”
K. Fukushima, D. E. Kharzeev and H. J. Warringa,
Phys. Rev. Lett. **104**, 212001 (2010);
arXiv:1002.2495 [hep-ph].
8. “**D-instantons and multiparticle production in N=4 SYM**”
D. E. Kharzeev and E. M. Levin
JHEP **2010**, 046 (2010);
arXiv:0910.3355 [hep-ph].

9. “Chern-Simons current and local parity violation in hot QCD matter”
D. E. Kharzeev
Nucl. Phys. A **830**, 543c (2009);
arXiv:0908.0314 [hep-ph].
10. “Chiral Magnetic conductivity”
D. E. Kharzeev and H. J. Warringa
Phys. Rev. D **80**, 034028 (2009) [arXiv:0907.5007 [hep-ph]]
11. Spin-polarized transport through a domain wall in magnetized graphene”
M. Khodas, I.A. Zaliznyak, and D. E. Kharzeev,
Phys. Rev. B **80**, 125428 (2009).
12. “Hot and dense matter: from RHIC to LHC: Theoretical overview”
D. E. Kharzeev
Nucl. Phys. A **827**, 118C (2009) [arXiv:0902.2749 [hep-ph]]
13. “In search of the QCD-Gravity correspondence”
T. Brasoveanu, D. Kharzeev and M. Martinez
Lecture Notes in Physics **785**, 341 (2010);
arXiv:0901.1903 [hep-ph];
14. “Broken scale invariance, massless dilaton and confinement in QCD”
D. Kharzeev, E. Levin and K. Tuchin
Journal of High Energy Physics **0906**, 055 (2009) [arXiv:0809.3794 [hep-ph]]
15. “Break-down of the $N = 0$ Quantum Hall State in graphene: Two insulating regimes”
L. Zhang, J. Camacho, H. Cao, Y.P. Chen, M. Khodas, D. Kharzeev, A. Tsvelik, T. Valla, I. Zaliznyak
Phys. Rev. B **80**, 241412 (2009).
16. “Parton energy loss at strong coupling and the universal bound”
D. E. Kharzeev
Eur. Phys. J. C **61**, 675 (2009) [arXiv:0809.3000 [hep-ph]]
17. “J/Psi production in heavy ion collisions and gluon saturation”
D. Kharzeev, E. Levin, M. Nardi and K. Tuchin
Nucl. Phys. A **826**, 230 (2009) [arXiv:0809.2933 [hep-ph]]
18. “The Chiral Magnetic Effect”
K. Fukushima, D. E. Kharzeev and H. J. Warringa
Phys. Rev. D **78**, 074033 (2008) [arXiv:0808.3382 [hep-ph]]
19. “Gluon saturation effects on J/Psi production in heavy ion collisions”
D. Kharzeev, E. Levin, M. Nardi and K. Tuchin
Phys. Rev. Lett. **102**, 152301 (2009) [arXiv:0808.2954 [hep-ph]]

20. Spontaneous symmetry breakings in graphene subjected to in-plane magnetic field”
I. L. Aleiner, D. E. Kharzeev, A. M. Tsvelik,
Phys. Rev. B **76**, 195415 (2007).
21. “Hadronic dissipative effects on transverse dynamics at RHIC”
T. Hirano, U. W. Heinz, D. Kharzeev, R. Lacey and Y. Nara
J. Phys. G **35**, 104124 (2008) [arXiv:0805.0064 [nucl-th]]
22. “Heavy Ion Collisions at the LHC - Last Call for Predictions”
N. Armesto *et al.*,
J. Phys. G **35**, 054001 (2008)
[arXiv:0711.0974 [hep-ph]].
23. “The effects of topological charge change in heavy ion collisions: ‘Event by event P and CP violation’ ”
D. E. Kharzeev, L. D. McLerran and H. J. Warringa,
Nucl. Phys. A **803**, 227 (2008)
[arXiv:0711.0950 [hep-ph]].
24. “Universal properties of bulk viscosity near the QCD phase transition”
F. Karsch, D. Kharzeev and K. Tuchin
Phys. Lett. B **663**, 217 (2008)
[arXiv:0711.0914 [hep-ph]].
25. “Mass ordering of differential elliptic flow and its violation for phi mesons”
T. Hirano, U. W. Heinz, D. Kharzeev, R. Lacey and Y. Nara,
Phys. Rev. C **77**, 044909 (2008)
[arXiv:0710.5795 [nucl-th]].
26. “Hadron multiplicities at the LHC”
D. Kharzeev, E. Levin and M. Nardi,
arXiv:0707.0811 [hep-ph]; in
J. Phys. G **35**, 054001 (2008)
27. “Bulk viscosity of QCD matter near the critical temperature”
D. Kharzeev and K. Tuchin
Journal of High Energy Physics **0809**, 093 (2008); [arXiv:0705.4280 [hep-ph]]
28. “Charge separation induced by P-odd bubbles in QCD matter”
D. Kharzeev and A. Zhitnitsky
Nucl. Phys. A **797**, 67 (2007)
[arXiv:0706.1026 [hep-ph]].
29. “Thermal Hadronization and Hawking-Unruh Radiation in QCD,”
P. Castorina, D. Kharzeev and H. Satz,
Eur. Phys. J. C **52**, 187 (2007) [arXiv:0704.1426 [hep-ph]].

30. “Theoretical issues in J/psi suppression,”
D. E. Kharzeev,
J. Phys. G **34**, S445 (2007)
[arXiv:hep-ph/0703259].
31. “Elliptic Flow from a Hybrid CGC, Full 3D Hydro and Hadronic Cascade Model,”
T. Hirano, U. W. Heinz, D. Kharzeev, R. Lacey and Y. Nara,
J. Phys. G **34**, S879 (2007)
[arXiv:nucl-th/0701075].
32. ”The physics of strong color fields”
D. Kharzeev
Acta Physics Polonica B, vol. 37, no.12, p. 29, 2006.
33. “Hawking-Unruh phenomenon in the parton language,”
D. Kharzeev,
Eur. Phys. J. A **29**, 83 (2006).
34. “Vacuum self-focussing of very intense laser beams”
D. Kharzeev and K. Tuchin
Phys. Rev. A **75**, 043807 (2007) [arXiv:hep-ph/0611133].
35. “Multi-particle production and thermalization in high-energy QCD”
D. Kharzeev, E. Levin and K. Tuchin
Phys. Rev. C **75**, 044903 (2007) [arXiv:hep-ph/0602063].
36. “Quantum black holes and thermalization in relativistic heavy ion collisions”
D. Kharzeev
Nucl. Phys. A **774**, 315 (2006) [arXiv:hep-ph/0511354]
37. “Sequential charmonium dissociation”
F. Karsch, D. Kharzeev and H. Satz
Phys. Lett. B **637**, 75 (2006) [arXiv:hep-ph/0512239]
38. “Hadronic dissipative effects on elliptic flow in ultrarelativistic heavy-ion collisions”
T. Hirano, U. W. Heinz, D. Kharzeev, R. Lacey and Y. Nara
Phys. Lett. B **636**, 299 (2006) [arXiv:nucl-th/0511046]
39. “Signatures of the color glass condensate in J/psi production off nuclear targets”
D. Kharzeev and K. Tuchin
Nucl. Phys. A **770**, 40 (2006) [arXiv:hep-ph/0510358]
40. “Chaos in the color glass condensate”
D. Kharzeev and K. Tuchin
Phys. Lett. B **626**, 147 (2005) [arXiv:hep-ph/0501271]

41. “From color glass condensate to quark gluon plasma through the event horizon”
D. Kharzeev and K. Tuchin
Nucl. Phys. A **753**, 316 (2005) [[arXiv:hep-ph/0501234](#)]
42. “Color glass condensate at the LHC: Hadron multiplicities in p p, p A and A A collisions”
D. Kharzeev, E. Levin and M. Nardi
Nucl. Phys. A **747**, 609 (2005) [[arXiv:hep-ph/0408050](#)]
43. “Parity violation in hot QCD: Why it can happen, and how to look for it”
D. Kharzeev
Phys. Lett. B **633**, 260 (2006) [[arXiv:hep-ph/0406125](#)]
44. “Nuclear modification factor in d + Au collisions: Onset of suppression in the color glass condensate”
D. Kharzeev, Y. V. Kovchegov and K. Tuchin
Phys. Lett. B **599**, 23 (2004) [[arXiv:hep-ph/0405045](#)]
45. “The Gribov conception of quantum chromodynamics”
Y. L. Dokshitzer and D. E. Kharzeev
Ann. Rev. Nucl. Part. Sci. **54**, 487 (2004) [[arXiv:hep-ph/0404216](#)]
46. “Jet azimuthal correlations and parton saturation in the color glass condensate”
D. Kharzeev, E. Levin and L. McLerran
Nucl. Phys. A **748**, 627 (2005) [[arXiv:hep-ph/0403271](#)]
47. “QCD in curved space-time: A conformal bag model”
D. Kharzeev, E. Levin and K. Tuchin
Phys. Rev. D **70**, 054005 (2004) [[arXiv:hep-ph/0403152](#)]
48. “Open charm production in heavy ion collisions and the color glass condensate”
D. Kharzeev and K. Tuchin
Nucl. Phys. A **735**, 248 (2004) [[arXiv:hep-ph/0310358](#)]
49. “Cronin effect and high-p(T) suppression in p A collisions”
D. Kharzeev, Y. V. Kovchegov and K. Tuchin
Phys. Rev. D **68**, 094013 (2003) [[arXiv:hep-ph/0307037](#)]
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